

Holding in Heat

Procedure

1. Use the chart shown below.

Container	Time (min.)		
	Start	5	10
Can covered			
Can uncovered			
Cup covered			
Cup uncovered			

2. **Collaborate** With a partner, fill two plastic-foam cups and two metal cans with the same amount of warm water.
3. **Measure** Use thermometers to measure the temperature of each water sample at the same time. Record your data in the chart.
4. **Measure** Cover the top of one cup and one can with aluminum foil. Secure the foil with a rubber band. After 5 minutes, remove the foil and measure the temperature of all four samples. Record your data and replace the foil covers.
5. **Observe** Wait 5 more minutes. Measure the water temperature again and record your data.

Name _____ Date _____

Conclusion

1. **Compare** How did the temperature of the water change over time?

2. **Compare** After 10 minutes, was the change in water temperature greater in the cups or the cans? In the uncovered containers or the covered containers?

3. **Infer** What inference can you make about how heat moves through different containers?

Experiment Which material would keep something cold longest? Put one ice cube each in a plastic-foam cup, a clear plastic food container, a metal can, and a glass jar. Time how long it takes each ice cube to melt.

Guided Inquiry